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ABSTRACT

This paper provides a summary of a Home Start Followup Study (HSFS) which was initiated in 1976. An attempt was made to examine the durability of gains made as the result of families' (parents and their 3- to 5-year-old children) participation in the program. In addition, the study was designed to determine whether program duration (one versus two years) had a lasting effect on parents and children as measured approximately two years after the conclusion of the Home Start demonstration. The HSFS's sample consisted of 199 Home Start, 46 Head Start, and 137 comparison group families (families who were eligible for but did not participate in the program). Three sets of comparisons were conducted: (1) Home Start families versus the comparison group families; (2) Home Start families versus Head Start families; and (3) Home Start families who had participated in the program for one year versus a group of Home Start families who participated in the program for two years. Five measures were used to determine the longterm impact of the program on participants. Four of the measures were standardized tests for children and one was a personal interview with parents. Results indicated that: (1) while math and reading performance of the Home Start first graders was lower than the national average, the Home Start second graders were comparable with respect to the national norm; (2) no significant differences were found on any of the children's outcome measures between the Home Start and the Head Start groups; (3) no differences were found between the one-year and two-year Home Start groups; and (4) most families were pleased that they had been involved in the program and indicated that the activities concerning the child and learning about child growth and development had been most important for them. (Author/MP)

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HOME START FOLLOWUP STUDY

A Study of Long-Term Impact of Home Start on Program Participants

Executive Summary

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Study Background

The Home Start Followup Study, sponsored by the Administration for Children, Youth and Families, examined the long-term impact of the Home Start program on program participants. Home Start was a three-year demonstration program (1972-75) which provided Head Start-type comprehensive services to young children and their families in their own homes rather than through a Head Start center. The program's approach was to offer education, health, nutrition and social services to families with children between three and five years of age, and to do so in a family-oriented rather than a strictly child-oriented way. Primary emphasis was placed on parents as the first and most important educators of their own children.

The original evaluation of the Home Start demonstration program (1972-76), conducted jointly by the High/Scope Educational Research Foundation and Abt Associates Inc., provided clear evidence that Home Start was effective for both parents and children. Few differences were found in terms of program effectiveness between Home Start and Head Start; the overall picture was one of similar effects.*

While the original evaluation provided information about immediately apparent program effects, the Home Start Followup Study attempted to examine the durability of gains made as the result of families' participation in the program. In addition, the study was designed to determine whether program

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*Love, J.M., Nauta, M.J. et al. National Home Start Evaluation: Final Report--Findings and Implications. High Scope Educational Research Foundation and Abt Associates Inc., 1976.

duration (one versus two years) had a lasting effect on parents and children as measured approximately two years after the conclusion of the Home Start demonstration. The Followup Study, initiated in 1976, was conducted by Abt Associates Inc. under subcontract with the High/Scope Educational Research Foundation.

Study Design

The design for the Home Start Followup Study called for a set of comparisons of certain outcome criteria among different treatment groups in order to determine long-term program impact on parents and children. The outcome criteria were closely linked to Home Start program goals and objectives; they included:

- personal and parenting skills;
- ease of transition to school and social competence of children; and
- cognitive and social emotional development for children.

Three sets of comparisons were conducted in the Followup Study: (1) Home Start versus a group of families with children who were eligible for the program but did not participate; (2) Home Start versus Head Start families; and (3) Home Start families who had participated in the program for one year versus a group that had been enrolled for two. The first set of comparisons required the selection of a retrospective comparison group since a preselected no-treatment group did not exist at the conclusion of the demonstration program. The ex post facto recruitment of the comparison group precluded the possibility of establishing a true experimental design for the Followup Study.

The comparison group was selected from the same classrooms the Home Start children attended. Thus, the two groups of children were exposed to the same school experience. Although the intent had been to recruit a comparable comparison group, the groups were found to be non-equivalent in many respects. It is often the case that sophisticated statistical procedures, such as analysis of covariance (ANCOVA) techniques, can be used to correct or adjust for group non-equivalency. However, this is theoretically only possible if the covariables are related to outcomes in the same way in both groups. Analysis of data from the Followup Study, though, showed that this important assumption regarding the use of ANCOVA was not the case for any but the one- and two-year Home Start groups. Under these conditions (nonrandom assignment to groups, group non-equivalence, and heterogeneity of regression), it is impossible to determine treatment effects because the status of the comparison group cannot be assumed to represent what would have happened to the experimental group had it not received the treatment. Most outcome analyses, as a result, were necessarily limited to descriptive comparisons which do not represent tests of treatment effects.

Impact Measures

Five measures were used in the Followup Study to determine long-term program impact on parents and children. Four were standardized tests for children--the Peabody Individual Achievement Test (Mathematics and Reading Recognition Subtests); the Purdue Social Attitude Scale for Primary Grade Children; the Stephens-Delys Reinforcement Contingency

Interview; and the Preschool Interpersonal Problem-Solving Test. The fifth measure was a personal interview with parents which obtained information about parent attitudes toward and involvement with school; parent-child interaction; maternal and child health; knowledge and use of community resources; and parent participation in the community.

Followup Study Sample

The Follow Study sample consisted of 199 Home Start, 46 Head Start and 137 comparison group families. For the Followup Study it was essential that the comparison group children's experiences during their preschool years contrasted as much as possible with those of the Home Start group so that group differences could more easily be attributed to the Home Start program. Non-participation in preschool was therefore one of the most important criteria for selecting comparison group children. The fact that the comparison group was smaller than the Home start group can be attributed to lack of school cooperation (a prerequisite for comparison group selection) and the absence in selected classrooms of comparison group children with minimal or no preschool experience. (About one-third of the comparison group children in the Followup Study had attended preschool for a median time period of three months.)

There was considerable attrition from the original Home Start evaluation sample--46 percent for the Home start and 72 percent for Head Start group. Urban Home Start families appear to be underrepresented in the Followup Study sample, with over two-thirds of the families coming from the three rural sites. The Followup Study and the group of Home Start evaluation

evaluation families who did not participate differed in other respects as well. The Followup Study sample was significantly higher on SES, cognitive tests for children and number of books available in the home, while the group that could not be located had higher usage of welfare and Medicaid.

The Followup Study confirmed findings from the original Home Start evaluation that Home Start and Head Start served different populations. Statistically significant differences were found between the two groups in the Followup Study in terms of educational attainment of the mother, favoring the Head Start group. More Head Start children came from single-parent families, lived in small towns or urban areas and came from smaller households than was the case for the Home Start group. The Home Start and Head Start groups were comparable, however, on total family and per capita income.

As noted earlier, the Home Start and comparison groups were not equivalent in many respects. Comparison group families had incomes almost twice as high as the Home Start group and the mother had more years of education. Among the Home Start group there were more children from single-parent families, higher use of public assistance, and a larger percentage of families with no income from employment. Comparisons between the Home Start and comparison groups could not be carried out except descriptively because of group non-equivalency and heterogeneity of regression.

Long-Term Impact on Children

Within-grade math and reading performance of the Home Start group were compared to the national norming sample for this test. Percentiles

were obtained by referring median scores for the group to norm tables in the test manual. These percentiles are in some respects inappropriate, since they compare the Home Start Followup Study sample to a nationally representative sample which is much higher in socio-economic status. If a norm group equivalent in SES could have been used, these percentiles would have been higher. Despite this fact, the performance of the Home Start group was better than expected. Although first grade performance is lower than the national average (though not too much lower, for reading achievement), Home Start second graders were comparable with respect to the national norm sample. In fact, the second grade percentiles of 49 and 56 for math and reading achievement, respectively, are the clearest evidence available in the Followup Study that the Home Start program had a positive long-term effect. The percentile data are also encouraging because they show no evidence of a so-called washout effect; there is no steady decline in performance from kindergarten through second grade. While it is true that the data are not longitudinal, a positive view of these results nonetheless seems justified.

No significant differences were found on any of the child outcome measures between the Home Start and the Head Start groups. As in the original evaluation, the overall picture was one of similar long-term program effects, even though the Head Start children had much more concentrated time in developmental activities than was the case in Home Start. The role of parents as the first and most important educators of their own children received primary emphasis in Home Start.

Long-Term Impact on Parents

Descriptive analyses show the Home Start and Head Start families to be comparable in terms of parent outcomes. This suggests that the two programs may have produced similar long-term program effects for parents. This hypothesis unfortunately cannot be tested due to heterogeneity of regression and to the small size of the Head Start group, which yields insufficient statistical power to detect group differences.

Some informal evidence was gathered from Home Start families about long-term program impact and their views about participation in Home Start. Most families were pleased that they had been involved in Home Start and indicated that activities concerning the child and learning about child growth and development had been most important to them. Some of the parents who were interviewed more than once found it difficult to talk about changes that occurred as the result of their involvement in Home Start. Others indicated that their "lives were better" and were emphatic about the program's helping role. Among reports of lasting change were: solutions to family problems; improvements in family relationships, including better (and frequently more) time spent with the children; job training and employment; financial stability; and a more "positive" outlook on life.

One- Versus Two-Year Home Start

One of the principal research questions the Home Start Followup Study was designed to address was whether two years of Home Start was more effective in producing positive outcomes for parents and children than one

year of program participation. No differences could be detected between the one- and two-year Home start groups at the conclusion of the original Home Start evaluation. It was hypothesized, however, that there might be a "sleeper" effect, and that differences between the groups could emerge two years after the program ended. It was possible to test this hypothesis in the Followup Study, since this was the only component of the study in which heterogeneity of regression was not a problem. There do not appear to be any differences on parent or child outcomes between the two groups that could support the notion that two years of Home Start is more effective than one.

It is possible, however, that parents in fact received additional benefits from their second year of program participation but that these changes could not be measured through a one-hour parent interview. It is important to remember that Home Start provided different services to families depending on their needs and circumstances. Although the overall emphasis was to help parents become better teachers of their children, the program also emphasized helping parents to experience success and acquire skills that were related to personal growth, social participation, family management, employment and economic progress. Home Start program staff reported helping parents with "survival" needs during the first year, while the second year was devoted to more personal and long-range aspects of family functioning.

During the original Home Start evaluation, staff often reported that changes in parents' ability to meet family needs with selective use of services, increased ability to cope with stressful situations or improved

self-concept required to seek and/or obtain employment were only possible for some parents after two years in the program. Such changes are difficult to define and are not easily reported by parents in a one-hour interview. Additional interviews with emphasis on such topics might have provided a different, richer perspective about the effects of different lengths of participation in Home Start.

Conclusion

It is unfortunate that the Home Start Followup Study could not provide a greater sense of clarity and certainty about the long-term impact of Home Start because of group non-equivalency and heterogeneity of covariable models. Evidence about the long-term impact of Home Start on parents and children as a result is indirect:

1. The performance of Home Start children on a standardized test of reading achievement shows that they were performing at or above the national norm--a level of achievement not frequently found among groups of low-income children. Their performance on mathematics achievement was only slightly below the national norm.

2. Despite group differences in socio-economic status, the Home Start and comparison groups ranked the same on a number of outcome domains for parents.

This implies that Home Start families may have overcome, to some extent, the "income gap," and that they are managing their lives in much the same way as families who are considerably better off. If this assumption is correct, Home Start undoubtedly played an important part in that.

The long-term effectiveness of Home Start has neither been proven nor disproven by the Followup Study due to circumstances that yielded a research design inadequate for the purpose of the evaluation. Future evaluations should be designed with the assessment of long-term effects in mind from the outset. Under no circumstances should a control group be completely absorbed into the experimental program if the possibility exists that it might be used in a later evaluation. The difficulty of forming an adequate comparison group by post hoc matching must not be underestimated, especially when circumstances such as within-class pairing limit the number of candidates from which a match must be drawn. Finally, it is imperative that homogeneity of regression assumptions be tested when analysis of covariance is to be the principal analytic tool. Had this not been done in the Followup Study, the analyses would not only have been erroneous, but dangerously misleading. The problems encountered in the Followup Study are an eloquent, if unfortunate, testimony to the attention they should receive in future program evaluations.